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## PATENT ABSTRACTS OF JAPAN

(11)Publication number:

02-233306

(43)Date of publication of application: 14.09.1990

(51)Int.CI.

B65B 9/02 B65B 57/00

(21)Application number: 01-041754

D00D 01/00

(22)Date of filing:

23.02.1989

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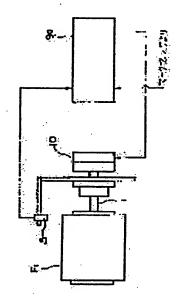
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### (54) PACKAGING EQUIPMENT

#### (57) Abstract:

PURPOSE: To prevent the slipping of a cutting position by a method wherein a signal which is in proportion to the outer diameter of a packaging material is obtained by a non-contact probe, and at the same time, a brake unit is controlled corresponding with this signal, and thus a uniform tension is always applied to the packaging material.

CONSTITUTION: Ultrasonic wave is emitted to a film F1 which is wound on a tape reel 1, and a time which is required for the ultrasonic wave to reflect on the surface of the film F1 and return to a non-contact probe 15 is measured. Since this time is in proportion to a distance from a non-contact probe 15 to the surface of the film F1, the outer diameter of the film F1 is detected by this time. By doing this, the outer diameter, which changes every second, of the film is detected by the non-contact probe 15, and a signal is sent to a powder brake 10 to control it, and a uniform tension is always applied to the film F1. Therefore, slip of a cutting position on the film after packaging does not generate.



#### **LEGAL STATUS**

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

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